

The coal is led from the bottom of the boiler-house coal-bunker by means of chutes into travelling-grate stoker hoppers, whence it is fed automatically to the travelling grates, as required, according to the load.

Practically nothing but ash remains in the mass which passes off the grates into the ash hoppers. A good sample of ash will contain from 5 to 10 per cent of "combustible", i.e. material capable of being burnt, and this is equivalent to a loss of from 1 to 2% per cent of the total coal fired.

Mechanical Stokers and Furnaces.—It frequently happens that the stoker gear, as designed, does not give the best service when dealing with special fuels.

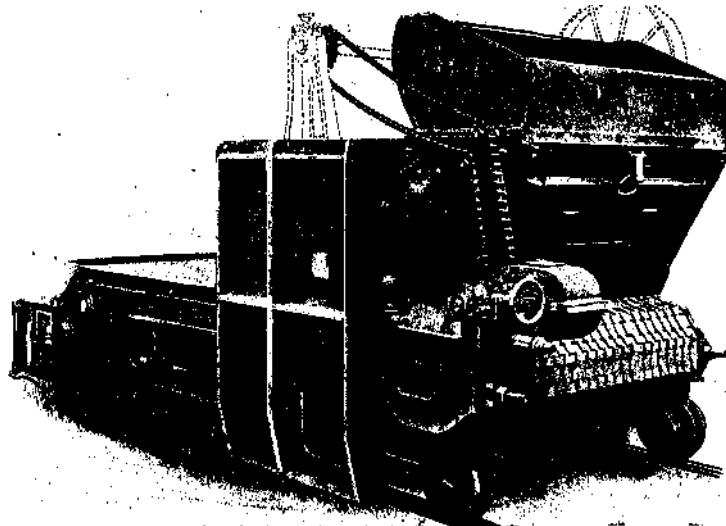


Fig. 2.—Babcock & Wilcox Patent Improved Mechanical Chain-grate Stoker

The importance of being able to deal with what we have described as low-grade fuel will be realized when it is said that many thousands of tons per annum used to be left in the abandoned portions of the coal-pit, and such of it as was brought "to bank" was, as a rule, dumped on to the pit heap. There was thus a large supply of cheap waste fuel available if it could be burnt.

Considerable advance has been made in the design of mechanical stokers. The moving-grate type of stoker has, however, proved to be by far the most popular. Many engineers are so convinced of its superiority over other types that they refuse to consider any other type of stoker. There are, however, considerable differences in the way in which

the moving grate
is operated. There is one moving grate which can be
found in nearly
every one of the big power stations throughout the
country (fig. 2). This
grate is used so universally because it deals with " the
average fuel" suc-
cessfully. One of the most successful types of moving
grate is that using
a particular design of link known as the " Parker link "
(fig. 3). This link